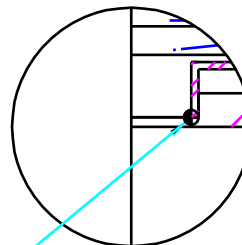


-A-

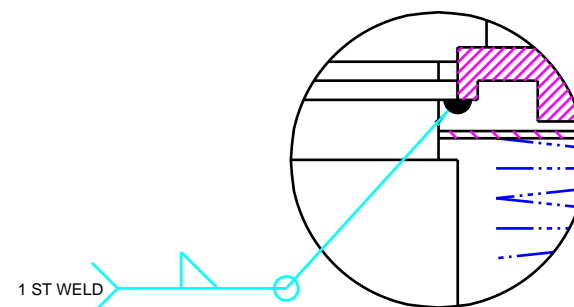
2 ND WELD

TIG



DETAIL "B"

SCALE 10X



DETAIL "A"

SCALE 10X

# NOTES:

1. WELD ASSEMBLY ACCORDING TO SEQUENCE SHOWN
2. THIS IS A ULTRA - HIGH - VACUUM ASSEMBLY (UHV)  
KEEP THE UHV PARTS CLEAN DURING ASSEMBLY,  
AND WRAP UP FOR PACKING WITH ALUMINUM FOIL
3. THE ASSEMBLY SHALL BE LEAK TESTED  
USING A MASS SPECTROMETER WITH  
MINIMUM SENSITIVITY FOR HELIUM  
OF 2X 10<sup>-10</sup> STANDARD CC/SEC PER  
LEAK METER DIVISION, SUCH AS:

ALCATEL ASM-110TCL  
VARIAN NCR 925 OR 936  
VEECO MS-9, MS-90 OR MS-18  
Du PONT CEC 24-120B

CALIBRATION OF THE LEAK DETECTOR  
SENSITIVITY SHALL BE PERFORMED JUST  
PRIOR TO TESTING.

FINAL TEST WILL CONSIST OF SURROUNDING  
THE ASSEMBLY (BAGGING) WITH HELIUM. THE  
ASSEMBLY WILL BE REJECTED IF A 2% DEFLECTION  
IN THE MOST SENSITIVE RANGE OF THE LEAK  
DETECTOR IS SENSED WITHIN 1 MIN.

3. DIMENSIONS IN [ ] ARE MILLIMETERS AND  
FOR REF. ONLY

0.005 A  
WHEN BELLOWS  
IS COMPRESSED

SEE DETAIL "A"

3  
B

TIG

3 RD WELD

7.250 [184.16]

2  
C

4

1  
C

SEE DETAIL "B"

SECTION A - A

4.725 [120.02]  
TRAVEL

## REF. SOURCE

STANDARD BELLOWS CO.  
375 TURNPIKE AVE.  
WINDSOR LOCKS, CON. 06096  
TEL: 1-860-623-2307  
FAX: 1-860-623-0398

SYN	CHANGE DESCRIPTION	BY	CHKD	DATE
	REVISIONS			



4	#220-104-10-AB	BELLOWS	SST	1
3	A3-710203-00	A3-71 UPPER BELLOW FLANGE	SST	1
2	A3-710202-00	A3-71 ACTUATOR SHAFT	SST	1
1	A3-710201-00	A3-71 LOWER BELLOWS FLANGE	SST	1
ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
PARTS LIST				
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES		THIS DRAWING IS THE PROPERTY OF		
TOLERANCES		ARGONNE NATIONAL LABORATORY		
DECIMALS		A3710200-00		
FRACTIONS		DRAWN BY		
SURFACE FINISH		MUSCIA		
REMOVE ALL BURRS AND		DATE		
BREAK SHARP EDGES 3X MAX.		5/19/00		
SURFACE TEXTURE TO BE IN		CHIEF DESIGN ENGINEER		
ACCORDANCE WITH LATEST ASST D		D. SHU		
ACCORDANCE WITH LATEST ASST D		CHECKED BY		
		J. CHANG		
		DATE		
		5/19/00		
		DESIGNER		
		CHANG/MUSCIA		
		DATE		
		5/19/00		
		RESPONSIBLE ENGINEER		
		J. CHANG		
		DATE		
		5/19/00		
		APPROVED/RELEASED		
		DATE		
		5/19/00		
		MATERIAL		
		SEE PARTS LIST		
		SCALE		
		HALF		
		SHEET 11		
		SIZE		
		C		
		DRAWING NUMBER		
		A3-710200-00		

ADVANCED PHOTON SOURCE  
A3-71 LIGHT LOAD  
PNEUMATIC ACTUATOR  
BELLOWS SHAFT &  
VACUUM FLANGE ASSEMBLY